

IN THE CLAIMS:

Cancel rejected claims 1-6 without prejudice or admission, cancel non-elected claims 7-9 subject to applicants' right to file a divisional application directed thereto, and add new claims 10-26 as shown in the following listing of claims, which replaces all previous listings and versions of claims.

1. - 9. (canceled).

10. (new) a mask correction method, using a composite charged particle beam device that produces a focused ion beam and an electron beam, for correcting redundant defects in a mask, such as photomask opaque defects and phase shift mask bump defects, comprising the steps of:

acquiring an image of a mask having a redundant defect by scanning the mask with an electron beam;

identifying the position of the redundant defect based on the image;

carrying out coarse correction of the redundant defect by etching using a focused ion beam; and

carrying out finishing correction of the coarsely corrected redundant defect by etching using an electron beam.

11. (new) A mask correction method according to claim 10; wherein the finishing correction is carried out while directing an etching assist gas to the coarsely corrected redundant defect being irradiated by the electron beam.

12. (new) A mask correction method according to claim 10; wherein the redundant defect is an opaque defect; the coarse correction is carried out to completely remove the opaque defect while incidentally injecting ions of the focused ion beam into the mask; and the finishing correction is carried out to remove the injected ions from the mask.

13. (new) A mask correction method according to claim 12; wherein the focused ion beam is comprised of gallium ions.

14. (new) A mask correction method according to claim 10; wherein the focused ion beam is comprised of gallium ions.

15. (new) A mask correction method according to claim 10; further including the steps of detecting secondary ions generated during coarse correction of the redundant defect and, when the type of detected secondary ions changes, terminating the coarse correction.

16. (new) A mask correction method according to claim 10; further including the steps of detecting secondary ions generated during coarse correction of the redundant defect and, when the type of detected secondary ions changes, terminating the coarse correction and automatically switching to finishing correction to repair damage to the mask that occurred during coarse correction.

17. (new) A mask correction method for removing redundant defects in a mask, such as photomask opaque defects and phase shift mask bump defects, comprising the steps of:

carrying out coarse correction by etching using a focused ion beam to remove a part of a redundant defect in a mask so as to leave a residual part of the redundant defect; and

carrying out finishing correction by etching using an electron beam to remove the residual part of the redundant defect.

18. (new) A mask correction method according to claim 17; wherein the finishing correction is carried out while directing an etching assist gas to the residual part of the redundant defect being irradiated by the electron beam.

19. (new) A mask correction method according to claim 18; wherein the focused ion beam is comprised of gallium ions.

20. (new) A mask correction method according to claim 17; wherein the focused ion beam is comprised of gallium ions.

21. (new) A method of correcting a redundant defect in a mask using a composite charged particle beam device, comprising the steps of:

providing a composite charged particle beam device having a focused ion beam lens barrel for producing a focused ion beam and an electron beam lens barrel for producing an electron beam;

scanning an electron beam produced by the electron beam lens barrel over a mask having a redundant defect to acquire an image of the mask;

identifying the position of the redundant defect from the image;

carrying out coarse correction of the redundant defect by etching using a focused ion beam produced by the focused ion beam lens barrel; and

carrying out finishing correction of the coarsely corrected redundant defect by etching using an electron beam produced by the electron beam lens barrel.

22. (new) A method of correcting according to claim 21; wherein the finishing correction is carried out while directing an etching assist gas to the coarsely corrected redundant defect being irradiated by the electron beam.

23. (new) A method of correcting according to claim 21; wherein the redundant defect is an opaque defect; the coarse correction is carried out to completely remove the opaque defect while incidentally injecting ions of the focused ion beam into the mask; and the finishing correction is carried out to remove the injected ions from the mask.

24. (new) A method of correcting according to claim 21; wherein the focused ion beam is comprised of gallium ions.

25. (new) A method of correcting according to claim 21; further including the steps of detecting secondary ions generated during coarse correction of the redundant defect and, when the type of detected secondary ions changes, terminating the coarse correction.

26. (new) A method of correcting according to claim 21; further including the steps of detecting secondary ions generated during coarse correction of the redundant defect and, when the type of detected secondary ions changes, terminating the coarse correction and automatically switching to finishing correction to repair damage to the mask that occurred during coarse correction.